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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,325	10/28/2003	Jurgen Ludwig	17024	6051

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EXAMINER	
LEE, WILSON	

ART UNIT	PAPER NUMBER
2821	

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/695,325	LUDWIG ET AL.	
	Examiner	Art Unit	
	Wilson Lee	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4/16/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections – 35 U.S.C. 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claims 1-10, 13, applicant fails to claim any steps regarding the method. They are vague whether they are an invention of a method or an apparatus.

Claims 11 and 12 are vague by virtue of their dependency on claims 1 and 2.

Regarding Claims 1, 2, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding Claims 2, 7, 12, the term "or" render multiple various definitions to the claimed invention whether which one is required or not.

Claim Rejections – 35 U.S.C. 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 11, 12, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Mashburn, III et al. (5,962,984).

Regarding Claim 1, Mashburn discloses a method of operating a gas-discharge lamp wherein the lamp is operated at least in part with a dc voltage component, characterized in that voltage pulses (high voltage pulses) are superimposed on the lamp dc voltage component (DC voltage) (See Col. 2, lines 35-43).

Regarding Claim 3, Mashburn discloses that the voltage pulses are sinusoidal (high frequency, AC source frequency) and decaying (damped oscillations) (See Col. 2, lines 37-41).

Regarding Claim 11, Mashburn discloses a power supply unit comprising a running voltage source (38) for supplying the dc voltage (See Col. 2, lines 62-65) and a pulse source (output transformer T1) for supplying the voltage pulses (See Col. 2, lines 38-42).

Regarding Claim 12, Mashburn discloses a power supply unit comprising means (terminal 16) for heating the lamp electrodes (22, 26), means (32) for pole reversal (relay poled voltage) of the lamp.

Claims 1-5, 7, 9-13, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Osterried et al. (5,770,924).

Regarding Claim 1, Osterried discloses a method of operating a gas-discharge lamp wherein the lamp is operated at least in part with a dc voltage component (U1), characterized in that voltage pulses (ignition pulses) are superimposed on the lamp dc voltage component (direct voltage U1) (See Col. 3, lines 21-25).

Regarding Claim 2, Osterried discloses a method of operating a gas-discharge lamp characterized in that the lamp is operated in the upper brightness range (glow

discharge during the ignition phase (period T1) shown in Figures 1 and 2) with dc voltage (direct voltage U1), with dc voltage and superimposed voltage pulses (ignition pulses) (See Col. 3, lines 21-25) or with high-frequency ac voltage (main AC voltage during the normal operation shown in Figure 2Aand title) while it is operated in the lower brightness range with dc voltage and superimposed voltage pulses or only with voltage pulses.

Regarding Claim 3, Osterried discloses that the voltage pulses are sinusoidal (sinusoidal wave shown in period T4) and decaying (decaying shown in period T4) (See Figure 2A).

Regarding Claim 4, Osterried discloses that the voltage pulses have a repetition rate of at least 100 Hz (90 to 150Hz when pulses are first energized during period T1) and a natural frequency (nominal frequency during period T4. See Col. 3, lines 52-55), which is higher than the repetition rate.

Regarding Claim 5, Osterried discloses that the dc voltage component being reduced would inherently reduce the brightness of the lamp because the load receives less voltage and is being less energized.

Regarding Claim 7, Osterried discloses that the voltage or the energy of the voltage pulses being selectively reduced would reduce the brightness of the lamp because the load receives less voltage and is being less energized.

Regarding Claim 9, Osterried discloses that the lamp is repeatedly subjected to a pole reversal (reverse polarized with respect to current I2; full-wave bridge VB change polarity) (See Col. 3, lines 41-44; Col. 5, lines 18-20).

Regarding Claim 10, Osterried discloses that the cathode of the lamp is heated (reached emission temperature), wherein the heating power is only selected to be so great that an increase in the heating power does not cause any further reduction in the running voltage of the lamp (with continuous direct current during which the electrode of the lamp which then functions as anode has reached emission temperature) (See abstract).

Regarding Claim 11, Osterried discloses a power supply unit comprising a running voltage source (SV) for supplying the dc voltage (U1) and a pulse source (VB) for supplying the voltage pulses (ignition pulses) (See Col. 3, lines 20-25).

Regarding Claim 12, Osterried discloses a power supply unit comprising a means (Z) for heating the lamp electrodes of lamp (LP) (See abstract and Figure 4), means (ZG2) for pole reversal (timing circuit changes polarity of the lamp (See Col. 5, lines 1-26), and means (sensor unit S) for measuring the lamp running voltage.

Regarding Claim 13, Osterried discloses that the dc voltage component (U1) is reduced to zero (See the graph in Figure 2A. U1 may be reduced to zero).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lin et al. (6,501,234) discloses a sequential burst mode activations circuit. Ito et al. (6,208,089) discloses a discharge lamp light circuit. Derra et al. (5,608,294) discloses a high-pressure lamp operating circuit with suppression of lamp flicker.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Wilson Lee whose telephone number is (571) 272-1824.

Papers related to Technology Center 2800 applications may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The official fax number is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wilson Lee
Primary Examiner
U.S. Patent & Trademark Office

11/28/04